

# Useful Ideas for Your Car

*Lifting Car Off Springs—Dented Fender Smoothed—New Battery Cover—Guard Saves Bumper—Clever Oil Filter*

**A**N ORDINARY iron C-clamp proves serviceable in many cases in removing dents from automobile fenders. To prevent damage to the finish, a wooden block of suitable size is placed under the mud guard and another on top of it at the point where the dent is located. These blocks should be of smooth, hard wood. The clamp is screwed as tight as possible with the fingers as shown in the illustration of Fig. 1. Then the clamp is gently rocked back and



Fig. 1. You can use a C-clamp and two blocks of smooth, hard wood to flatten out mud guard dents

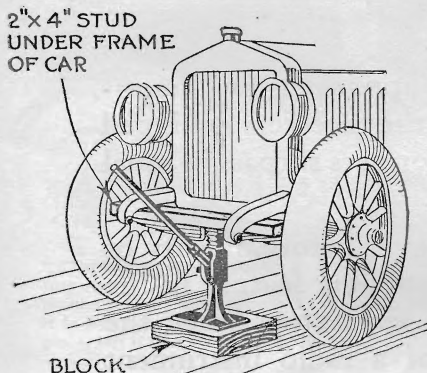


Fig. 2. Here is a simple way to jack up the frame of the car so as to take the weight off both front springs. The splash apron, of course, is removed

forth. The pressure and the motion slightly flattens the dent and the screw of the clamp can again be tightened. The operation is repeated until the dent is completely flattened out.

## Taking Weight Off Springs

**T**HE front end of an automobile may be easily raised to permit the removal of the springs. All you need is the regular

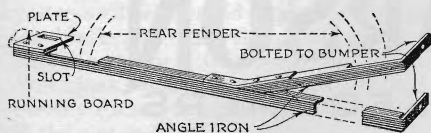


Fig. 3. A rear fender guard like this prevents motorists from hooking your bumpers. It can be removed easily and quickly for changing tires

jack, a wooden two-by-four, and a block of wood, arranged as in Fig. 2.

## FenderGuard Avoids Hooking

**I**N FIG. 3 is shown a simple rear fender guard that will keep the other fellow's bumper from catching in yours if he happens to swing in too close. It is made of angle iron with portions cut away at the points indicated to clear the edge of the fender. By removing the rear wing nuts and loosening up the front one the guard can be removed for tire changes.

## Ten Dollars for an Idea!

**E. E. LINDSAY**, of Champaign, Ill., wins this month's \$10 prize with his suggestion of an oil filter (Fig. 5). Each month **POPULAR SCIENCE MONTHLY** awards \$10, in addition to regular space rates, for the best idea sent in for motorists. Other contributions published are paid for at the usual rates.

## Ingenious Oil Filter

**FIG. 5** shows a homemade oil filtering system that can be applied to any automobile to make it modern and up-to-date.

You need one vacuum tank in good working order. A serviceable one can be obtained at a low price from any auto wrecking yard. In addition, you need the outer shell of another vacuum tank to serve as a filter compartment. Of course, this tank could be soldered up

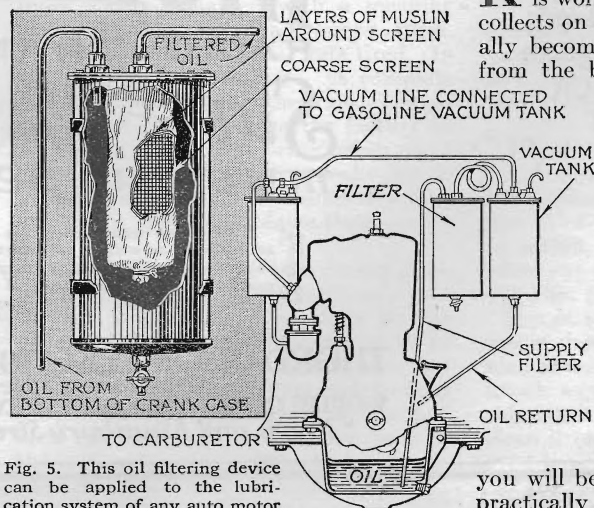


Fig. 5. This oil filtering device can be applied to the lubrication system of any auto motor

from sheet metal in any shape desired. Copper piping is used to connect the tanks as shown in the illustration. If your car is fitted with a vacuum tank to supply gasoline to the carburetor, fit a tee instead of an elbow on the intake manifold pipe. If your car has no vacuum tank, run the air pipe from the vacuum tank which is to pump oil through the filter directly to a coupling fitted into a hole drilled in the intake manifold. As long as the motor is running, oil will automatically be pumped up through the filter and allowed to run back into the crank case. This system will work perfectly on any type of gasoline engine no matter what type of lubricating system is used.

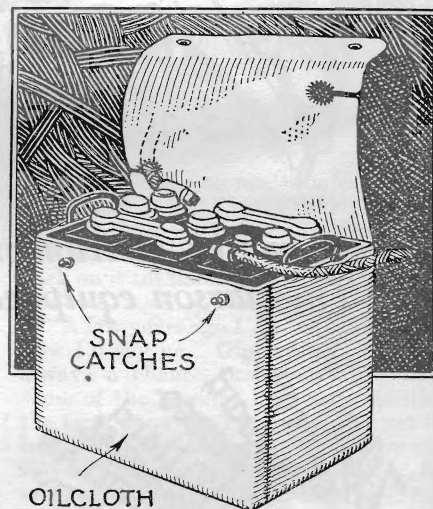


Fig. 4. A cover made of oilcloth will keep the battery clean and stop corrosion and current leakage

## Cover Keeps Battery Clean

**K**EEPING the starter battery clean is worth while because the dirt that collects on the top of the battery eventually becomes soaked with creeping acid from the battery and greatly increases the corrosion as well as the leakage. A piece of oilcloth as shown in Fig. 4 will serve to keep dirt and water splashed up from the road from collecting on the top of the battery. It can be made to fit snugly by cutting openings for the cables and fitting snaps along one edge to hold it in place. If the top of the battery is wiped off with a rag moistened with household ammonia at intervals, and the cover is kept buttoned, you will be able to keep the battery in practically new condition.